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THE FLUCTUATION OF EEC VARIABLE LEVIES

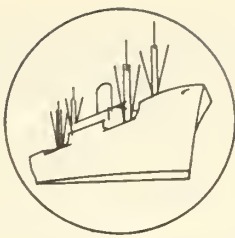
by

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SPECIAL in this issue

THE FLUCTUATION OF EEC VARIABLE LEVIES

by

Hans G. Hirsch 1/

On July 30, 1962, the European Economic Community (EEC) started to subject imports of grains, grain products, poultry, eggs, and pork to variable import levies. These levies have entailed the abolition of all custom duties or similar charges and of all quantitative restrictions or measures having equivalent effect, on imports from third countries. (The EEC, however, may nevertheless issue such restrictions.) 2/ Time series of these levies are not formally published and thus have been difficult to obtain in the United States.

The purpose of this paper is twofold: (1) To publish time series of variable levy rates for imports from nonmember countries through March 31, 1965 and (2) to present an exploratory and preliminary statistical analysis of the temporal variation in the levies.

Despite some differences in the treatment of products, the rate of the levy or other payment an importer must make is similar in one respect: It is subject to daily change. 3/

Underlying this daily changeability is the concept of an administered domestic price level which must be completely insulated from outside or world market price movements -- if necessary by daily changes in levy rates or by the imposition of supplementary fees. Thus, an importer's buying price, including the levy, would have to equal an administered price, with preordained seasonal variations. 4/

1/ Agricultural Economist, Trade Statistics and Analysis Branch, Foreign Development and Trade Division, Economic Research Service.

2/ This statement is based upon the EEC-prepared translation of Articles 20 and 21 of Regulation 19, as published in European Economic Community, Commission, Regulations and Decisions in the Field of Agriculture Adopted by the Council on January 14, 1962.

3/ Rice became subject to levies on September 1, 1964. Rice levies are fixed weekly.

4/ Since trading (contracting) prices are typically fixed sometime before actual importation and the levy need not be fixed until the day of importation, an importer's buying price, including the levy, might differ from the administered price, reflecting levy changes between day of trading (contracting) and day of importation.

The lower levies to which imports from member countries are subjected are not shown. Those levies are of a transitional nature -- until market harmonization will have been achieved. They differ by country of origin and by country of destination. Thus, in theory, there could be 30 (6 x 5) different levy rates in force for the trade between EEC countries in any variable levy product at a given time. Since some of the six countries are not exporters, actually fewer levy rates are fixed.

This article deals with grains. Subsequent articles will cover variable import levies on wheat flour, poultry, eggs, and pork.

Grains

EEC Regulation No. 19 on the gradual establishment of a common organization of the market in cereals is the basic provision for the entire levy system. 5/ The levy for each type of grain is the difference between the higher threshold price and the lower c.i.f. price. 6/

Threshold prices for each type of grain are pre-fixed annually by the individual member countries, in accordance with EEC-wide procedures and standards. They tend to rise by monthly steps with the passing of the marketing year to allow for storage cost and interest.

C.i.f. prices are fixed by the EEC Commission, typically 1 day prior to the day to which they apply, for each day of the week, with identical prices for Saturday, Sunday, and Monday. 7/ They are standardized prices based on the "most favorable offers on the world market," that is, on the lowest offer price, after geographical equalization. For instance, if identical prices for identical grades of wheat or corn were quoted in Rotterdam and Genoa, the Genoa price would be considered the more favorable offer -- the lower price after geographical equalization -- because freight rates to Genoa from typical origins are higher. Thus, the Genoa quotation, minus a freight factor, would form the basis for the official c.i.f. price applicable to Rotterdam.

5/ Journal Officiel des Communautés Européennes (also published in German, Italian and Dutch; hereafter cited as J.O.) No. 30, p. 933, April 20, 1962. English translation, European Economic Community, Commission, Regulations etc., op. cit.

6/ The actual levies, as released by the individual countries, may not be exactly equal to the difference between threshold and c.i.f. prices since they are revised only when the difference between the threshold price and the c.i.f. price changes by more than a specified minimum. That minimum may range from \$0.45 to \$0.75/m.t.; see Reg. 67, J.O. 66, p. 1860, July 28, 1962. In Germany, e.g., that minimum was reported as \$0.45/m.t. in 1962-63 and in 1963-64. In the Netherlands, it was reported as \$0.75/m.t. as of July 1965.

7/ These c.i.f. prices are published weekly in the quadrilingual Journal Officiel des Communautés Européennes, Supplement Agricole.

This price would be lower than the quoted Rotterdam market price and the levy would be higher than if calculated from the quoted Rotterdam market price. The adopted "official c.i.f. prices" apply to the following locations 8/:

for Belgium:	Antwerp
for the Netherlands:	Rotterdam
for Germany:	Emmerich (on the Rhine, near the German-Dutch border)
for Italy:	Palermo for nondurum wheat and its products Genoa for durum wheat and its products Ravenna (straight east of Genoa, near the Adriatic Sea) for other products
for Luxembourg:	Sterpenich, Belgium, near the Luxembourg border, for food grains and their products Antwerp for other products
for France:	Dunkirk for corn, sorghum and millet Marseille for other products

These provisions for locations imply that the c.i.f. prices for nondurum wheat are lowest for Belgium and the Netherlands (Antwerp and Rotterdam), slightly higher for Germany (the distance from Rotterdam to Emmerich is short and water freights are low), considerably higher for France and Italy (overseas freights to Mediterranean ports are higher than to Antwerp-Rotterdam), and highest for Luxembourg, because the wheat price at Sterpenich includes railroad freight costs. By contrast, the c.i.f. prices for corn are lowest for Luxembourg (together with Belgium and the Netherlands), because Antwerp is the place to which the price applies. The French c.i.f. price for corn, although applying to Dunkirk, surprisingly, is slightly higher than that applying to Benelux. Italy has the highest c.i.f. price, based on Ravenna. While the threshold and the c.i.f. prices apply to specific locations, the levies based upon them apply nationwide, at all points of importation.

Standardization of c.i.f. prices, analogously, takes place with respect to quality differences. Thus, quality differentials 9/ are applied to the price quotations which the EEC Commission receives, so as to "standardize" the official c.i.f. prices. This results in uniform levies for each type of grain, regardless of grade or quality, in each country on any day. For instance, from the quoted price for U.S. Red Spring Wheat I and II, a quality differential of \$10.50 per metric ton is deducted to "standardize" the quotation. 10/ If after such an adjustment, that quotation represents the lowest offer, the Commission determines the c.i.f. prices accordingly and the levy will be the threshold price minus the applicable c.i.f. price.

8/ See Reg. 68, J.O. 66, p. 1861, July 28, 1962 and Reg. 37, J.O. 49, p. 725, March 25, 1965; also every issue of Journal Officiel etc., Supplement Agricole, op. cit., and Toepfer, Alfred C., Die deutsche Getreidemarktordnung in der EWG, 1962-63 and do., 1963-64.

9/ The French term, "coefficients d' équivalence" is sometimes transliterated into "coefficients of equivalence;" but the term, quality differentials, is a more meaningful translation.

10/ Reg. 70, J.O. 66, p. 1864, July 28, 1962.

This has one-sided cost implications, detrimental to the non-EEC supplier of high-quality wheat and its EEC importer. If the demand for this specific product is unusually strong, the price(s) of other types of wheat will form the basis for the c.i.f. price determination. The c.i.f. price will be unusually low relative to the assumed strong price for high-quality wheat and the levy will be higher than if the price of high-quality wheat had been considered. On the other hand, relatively weak demand for high-quality wheat may imply that the price for such wheat will exceed that for poorer quality wheats by less than the usual differential and that high-quality wheat will thus form the basis for the c.i.f. price determination. However, in "standardizing" the price quotation, the long-established quality differential will be deducted even though it exceeds the current, lesser differential, assumed in our analysis. The c.i.f. price will again be low, the levy high, and the levy-paid price of high-quality wheat will remain high -- insensitive to the relatively weak demand for such wheat and not reflecting its assumed, abundant supply.

This insensitivity of the levy-paid price to market forces is further emphasized by the effect of the "lump sum." ^{11/} This is a transitional feature designed to price member country grains lower to the buyer than nonmember country grains, other things being equal. This EEC preference is an unusual and perhaps unique feature in the history of international trade preferences and discriminations. Ordinarily, a buyer incurs the same cost for the same product regardless of origin, and the benefit of any preferential tariffs or of duty-free treatment accrues to the seller. Member country suppliers do receive higher prices than suppliers outside the EEC, and these higher prices are compensated by lower levies, other things being equal. However, the buyer-importer receives a "lump sum" discount below his cost (price plus levy) for nonmember grain when he buys the EEC member country product. Thus, the product imported from outside the EEC assumes the role of the residual or marginal supply.

During the transitional period (July 30, 1962 until June 30, 1967) threshold prices, c.i.f. prices, and variable levies differ among countries.

Levies, averaged by half-year periods for principal grains and for each of the 6 countries, are shown in table 2. As is well known, grain levies have tended to be highest in Germany and, for bread grains, lowest in France. Nondurum wheat levies have also been relatively high in Italy and Luxembourg. Feed grain prices, and thus levies, have been lowest in Italy and much higher but still relatively low in France. Grain prices, and thus levies, in Belgium and the Netherlands have been intermediate and closer to the future common level of prices and levies than in the larger member countries.

For concise presentation table 2 is in the nature of a summary table. Considerably more detail is shown in tables 3 through 9 and figures 3 through 9 which present monthly rather than semiannual averages of the variable levies for the important grains by country.

^{11/} The lump sum for grains was originally set at \$1.00 per metric ton. Since July 1, 1963, it has amounted to \$1.10, Reg. 69, J.O. 66, p. 1863, July 28, 1962; Reg. 58, J.O. 98, p. 1801, June 29, 1963; Reg. 72, J.O. 102, p. 1593, June 29, 1964.

Table 2.--European Economic Community variable levies for principal grains from nonmember countries, July 30, 1962 to December 31, 1964, averaged by calendar half-years 1/

Commodity - period	Belgium	Germany (F.R.)	France	Italy	Luxem- bourg <u>2/</u>	Netherlands
	Dollars per metric ton					
<u>Corn</u>						
1962 - July-Dec.	27.04	54.70	35.24	5.77	---	18.42
1963 - Jan.-June	23.13	52.37	32.40	.27	23.13	12.46
1963 - July-Dec.	16.50	43.84	31.07	.49	16.50	12.63
1964 - Jan.-June	20.47	47.63	32.05	.90	20.47	13.68
1964 - July-Dec.	17.93	44.56	31.52	1.08	17.93	19.40
<u>Sorghum</u>						
1962 - July-Dec.	32.73	53.77	40.91	20.11	---	21.68
1963 - Jan.-June	29.60	52.87	38.85	15.40	29.60	16.82
1963 - July-Dec.	20.97	45.84	36.29	11.60	20.97	16.29
1964 - Jan.-June	25.10	48.66	36.01	12.73	25.10	17.50
1964 - July-Dec.	21.90	45.52	35.34	12.54	21.90	23.25
<u>Barley</u>						
1962 - July-Dec.	28.33	51.48	23.09	5.55	---	23.01
1963 - Jan.-June	29.93	54.51	26.73	5.21	29.93	22.06
1963 - July-Dec.	26.40	48.20	24.25	6.30	26.40	22.57
1964 - Jan.-June	26.77	48.96	26.13	4.52	26.77	20.42
1964 - July-Dec.	26.27	46.66	22.63	5.52	26.27	26.16
<u>Oats</u>						
1962 - July-Dec.	16.63	39.60	12.78	4.41	---	17.35
1963 - Jan.-June	16.10	39.62	14.17	1.36	16.10	13.92
1963 - July-Dec.	16.30	37.44	18.83	2.63	16.30	17.71
1964 - Jan.-June	22.17	43.61	26.75	6.07	22.17	21.00
1964 - July-Dec.	19.97	39.33	22.07	6.09	19.97	24.81
<u>Wheat, nondurum</u>						
1962 - July-Dec.	41.23	63.39	38.72	52.61	---	36.91
1963 - Jan.-June	46.30	69.26	43.20	56.60	59.00	42.19
1963 - July-Dec.	39.73	59.74	37.44	52.26	49.53	39.55
1964 - Jan.-June	43.07	63.95	39.71	52.87	52.53	43.18
1964 - July-Dec.	40.53	60.58	37.96	51.19	49.93	47.08
<u>Wheat, durum</u>						
1962 - July-Dec.	17.67	36.17	24.44	53.31	---	<u>3/</u> 13.66
1963 - Jan.-June	33.53	53.14	39.06	66.90	42.53	23.77
1963 - July-Dec.	24.37	51.15	35.41	64.40	35.10	24.25
1964 - Jan.-June	33.37	60.96	43.84	72.65	43.97	33.00
1964 - July-Dec.	32.00	59.01	43.35	79.91	42.27	38.78
<u>Rye</u>						
1962 - July-Dec.	20.17	53.51	21.24	38.76	---	11.17
1963 - Jan.-June	16.83	53.91	19.87	32.99	44.80	5.45
1963 - July-Dec.	10.27	43.64	13.37	30.84	35.30	5.36
1964 - Jan.-June	14.60	50.99	19.36	30.46	38.63	6.37
1964 - July-Dec.	23.40	53.02	24.40	40.43	43.97	20.40

1/ Averaged and converted from monthly data, in national currencies, published in European Economic Community, Marchés Agricoles, Prix.

2/ Luxembourg rates not published before April 1963 (January 1963 for sorghum). Corn, sorghum, barley, and oat levies identical with Belgian rates. Wheat, nondurum and durum, and rye levies on Jan.-June 1963 lines are April-June averages.

3/ Netherlands durum wheat rate not published before September 1962. Figure is a Sept.-Dec. average.

Table 3.--Corn: EEC variable levies for nonmember countries, July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month	Belgium- Luxembourg 2/	Germany (F.R.)	France	Italy	Netherlands
-- Dollars per metric ton --					
<u>1962</u>					
August	31.40	56.80	38.61	8.40	20.69
September	27.40	53.38	39.13	7.44	20.39
October	26.80	55.70	33.95	6.37	19.17
November	26.40	55.32	33.91	5.39	17.90
December	23.20	52.28	30.61	1.23	13.95
<u>1963</u>					
January	22.20	51.92	29.90	.35	12.18
February	23.60	52.68	31.25	.35	12.76
March	23.60	51.82	32.16	.13	12.87
April	24.00	53.42	33.66	.43	13.26
May	23.20	52.65	33.89	.10	12.32
June	22.20	51.75	33.54	0	11.38
July	17.00	43.72	34.47	0	13.95
August	16.00	42.68	34.09	0	12.68
September	14.60	42.00	32.91	0	11.57
October	15.00	42.60	29.15	0	11.13
November	17.80	45.30	27.43	.53	13.20
December	18.60	46.75	28.36	.45	13.23
<u>1964</u>					
January	18.40	45.55	28.52	.19	12.40
February	21.40	49.00	32.04	1.92	15.14
March	21.40	48.40	32.16	1.12	14.31
April	20.80	47.88	32.57	.35	13.67
May	20.40	47.55	33.02	0	13.34
June	20.40	47.38	34.01	0	13.20
July	18.20	45.18	35.93	.90	16.30
August	17.20	43.15	36.05	.70	17.71
September	17.00	43.40	35.51	1.30	19.17
October	18.20	44.88	26.92	2.08	20.83
November	18.80	45.58	27.69	1.46	21.46
December	18.20	45.15	27.04	.02	20.91
<u>1965</u>					
January	17.00	44.02	26.19	0	19.61
February	15.60	42.50	25.22	0	18.62
March	17.40	43.68	27.43	0	19.83

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Luxembourg rates not published before April 1963, but presumed identical with Belgian rates; identical with Belgian rates since then.

Source: Marchés Agricoles, Prix.

Table 4.--Grain sorghum: EEC variable levies for nonmember countries,
July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month	: Belgium- : Luxembourg 2/:	: Germany : (F.R.)	: France	: Italy	: Netherlands
	-- <u>Dollars per metric ton</u> --				
<u>1962</u>	:	:	:	:	:
August.....	35.40	54.15	42.72	21.50	22.73
September.....	32.00	54.38	44.18	21.17	22.93
October.....	32.60	54.55	39.72	20.94	22.65
November.....	31.60	53.50	38.95	19.34	20.94
December.....	29.40	51.90	37.15	16.22	18.07
<u>1963</u>	:	:	:	:	:
January.....	28.20	50.52	35.89	14.34	16.16
February.....	30.40	52.78	38.04	15.50	17.32
March.....	29.60	53.18	38.22	15.07	16.74
April.....	31.00	54.70	40.71	16.72	18.12
May.....	29.20	52.90	39.56	15.22	16.19
June.....	29.20	53.15	40.69	15.52	16.38
July.....	23.00	46.40	42.03	15.09	19.03
August.....	23.40	46.48	43.14	15.23	19.47
September.....	20.60	44.10	40.43	12.10	16.68
October.....	18.60	49.90	32.75	8.86	13.73
November.....	19.80	43.52	29.27	8.64	14.28
December.....	20.40	44.65	30.14	9.70	14.53
<u>1964</u>	:	:	:	:	:
January.....	21.60	45.52	31.33	9.39	14.83
February.....	24.29	48.08	34.33	11.18	17.04
March.....	25.00	48.70	35.22	12.35	17.38
April.....	25.80	49.20	36.80	13.34	17.87
May.....	26.40	49.75	38.10	14.29	18.48
June.....	27.60	50.68	40.17	15.81	19.39
July.....	24.20	47.30	40.55	14.59	22.29
August.....	21.80	45.02	38.75	13.25	22.35
September.....	21.00	44.55	37.57	12.51	23.34
October.....	21.40	45.10	31.46	12.91	23.95
November.....	21.40	45.32	31.64	11.63	24.17
December.....	21.60	45.80	32.08	10.32	24.42
<u>1965</u>	:	:	:	:	:
January.....	22.40	46.72	32.57	9.63	25.19
February.....	22.00	46.18	32.59	8.69	24.89
March.....	24.00	47.00	34.70	9.98	26.08

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Luxembourg rates not published before January 1963 but presumed identical with Belgian rates; identical with Belgian rates since then.

Source: Marchés Agricoles, Prix.

Table 5.--Barley: EEC variable levies for nonmember countries, July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month	Belgium- Luxembourg <u>2/</u>	Germany (F.R.)	France	Italy	Netherlands
-- Dollars per metric ton --					
<u>1962</u>					
August	28.80	51.05	22.30	6.85	23.23
September	27.40	51.15	22.89	5.18	23.59
October	29.60	53.20	24.97	6.82	24.81
November	30.00	53.35	25.28	6.32	24.31
December	25.40	49.05	20.78	1.28	18.89
<u>1963</u>					
January	24.80	48.42	20.09	0	17.79
February	27.00	50.68	22.48	.98	18.98
March	28.40	53.42	25.50	3.04	20.44
April	32.20	57.22	29.29	6.05	24.09
May	32.80	57.80	29.84	6.70	24.70
June	34.40	59.52	33.16	9.26	26.38
July	32.40	53.85	30.24	13.39	29.64
August	33.60	53.25	29.25	12.64	28.95
September	27.20	49.52	25.91	8.32	24.56
October	22.80	45.20	21.37	2.77	19.14
November	22.00	44.28	19.87	.50	17.65
December	20.40	43.12	18.84	.18	15.50
<u>1964</u>					
January	19.80	42.25	18.59	0	14.39
February	23.00	45.62	21.86	.77	16.96
March	28.40	50.62	27.36	4.88	21.80
April	29.40	51.25	28.96	5.78	22.65
May	30.00	52.08	29.59	5.68	23.40
June	30.00	51.92	30.44	5.49	23.31
July	29.40	49.38	25.14	8.78	26.63
August	27.80	47.38	24.12	7.89	26.60
September	25.20	45.48	21.29	5.41	25.80
October	27.40	47.92	24.69	6.43	28.15
November	24.60	45.50	21.43	3.20	25.64
December	23.20	44.28	19.10	1.41	24.17
<u>1965</u>					
January	23.20	44.40	20.86	1.42	24.25
February	23.60	44.05	21.87	1.26	24.89
March	24.80	45.18	23.78	2.05	25.61

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Luxembourg rates not published before April 1963, but presumed identical with Belgian rates; identical with Belgian rates since then.

Source: Marchés Agricoles, Prix.

Table 6.--Oats: EEC variable levies for nonmember countries, July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month :	Belgium :Luxembourg <u>2/</u> :	Germany :(F.R.)	:	France	:	Italy	:	Netherlands
-- Dollars per metric ton --								
<u>1962</u>	:							
August.....:	17.60	40.80		13.39		6.34		19.36
September.....:	17.40	40.12		13.43		5.38		18.62
October.....:	18.80	41.42		15.11		5.49		19.47
November.....:	16.80	40.05		12.86		2.90		16.88
December.....:	11.60	34.42		8.51		0		10.41
:								
<u>1963</u>	:							
January.....:	13.20	35.80		10.90		0		11.46
February.....:	13.40	36.60		11.42		0		11.55
March.....:	14.40	38.10		12.90		.35		12.18
April.....:	18.00	41.92		15.27		2.08		15.66
May.....:	18.40	42.30		16.16		2.24		16.02
June.....:	19.20	43.00		18.39		3.46		16.66
July.....:	17.00	37.52		19.18		4.03		19.06
August.....:	18.40	38.98		20.48		5.47		20.44
September.....:	15.40	36.38		17.70		2.22		17.40
October.....:	13.60	34.85		16.24		.06		14.81
November.....:	15.20	36.80		17.86		.64		15.99
December.....:	18.20	40.08		21.51		3.33		18.56
:								
<u>1964</u>	:							
January.....:	19.20	40.82		23.17		4.27		18.70
February.....:	22.80	44.25		25.87		5.86		21.71
March.....:	24.00	45.38		27.49		6.66		22.57
April.....:	23.00	44.32		27.65		6.66		21.60
May.....:	22.00	43.65		27.95		6.88		20.91
June.....:	22.00	43.25		28.38		6.06		20.52
July.....:	22.00	41.15		23.62		9.09		24.20
August.....:	20.80	39.58		22.24		7.60		24.81
September.....:	18.20	37.38		20.48		5.07		23.70
October.....:	20.00	39.32		22.44		6.43		25.55
November.....:	18.00	37.72		20.26		2.85		23.78
December.....:	20.80	40.85		23.39		5.50		26.80
:								
<u>1965</u>	:							
January.....:	22.80	43.05		24.91		6.26		28.81
February.....:	20.00	40.05		23.03		3.50		26.41
March.....:	21.80	41.05		24.95		4.22		27.51

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Luxembourg rates not published before April 1963, but presumed identical with Belgian rates; identical with Belgian rates since then.

Source: Marchés Agricoles, Prix.

Table 7.--Nondurum wheat: EEC variable levies for nonmember countries,
July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month	: Belgium	: Germany	: France	: Italy	: Luxembourg:	: Nether-
		: (F.R.)			: 2/	: lands 2/
	-- Dollars per metric ton --					
1962						
August	39.40	61.25	36.36	50.14	---	34.61
September	40.00	62.82	37.63	51.79	---	36.19
October	42.60	64.62	40.06	53.52	---	38.45
November	42.00	63.88	40.43	54.54	---	37.76
December	44.00	66.52	41.46	55.52	---	39.83
1963						
January	44.60	66.70	42.43	56.38	---	40.91
February	45.80	67.78	43.10	57.02	---	41.82
March	47.00	69.62	43.39	57.15	---	43.09
April	47.40	70.70	44.03	57.78	59.60	43.78
May	45.60	69.28	41.93	55.06	58.00	41.30
June	47.40	71.50	44.30	56.22	59.40	42.24
July	42.80	62.22	40.57	55.62	52.40	42.07
August	43.20	62.45	40.85	55.90	52.60	42.43
September	39.20	59.32	37.47	52.29	49.20	39.28
October	36.20	56.62	34.15	49.10	46.40	36.44
November	37.60	58.08	35.04	49.54	47.60	37.71
December	39.40	59.72	36.54	51.10	49.00	39.39
1964						
January	40.00	60.25	37.25	50.93	49.60	40.25
February	41.80	62.48	38.93	52.11	51.20	42.15
March	43.00	63.90	40.06	53.34	52.40	43.40
April	42.20	63.25	38.75	52.42	51.60	42.68
May	44.60	65.78	40.10	53.49	54.20	44.94
June	46.80	68.02	43.16	54.91	56.20	45.63
July	37.20	56.35	35.22	48.21	46.20	42.82
August	39.20	58.20	36.05	50.62	48.00	44.94
September	40.60	60.68	37.56	52.21	49.80	47.35
October	41.60	61.88	37.53	51.92	51.00	48.40
November	41.00	61.75	38.63	52.66	50.80	48.09
December	43.60	64.62	42.78	57.50	53.80	50.86
1965						
January	46.00	66.98	45.03	59.89	56.20	53.15
February	47.60	68.52	46.30	60.83	57.80	54.48
March	48.80	69.75	47.40	61.65	59.00	55.66

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Levy rates not published where no data are shown.

Source: Marchés Agricoles, Prix.

Table 8.--Durum wheat: EEC variable levies for nonmember countries,
July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month	Belgium	Germany (F.R.)	France	Italy	Luxembourg	Netherlands
					2/	2/
	-- Dollars per metric ton --					
<u>1962</u>						
August.....	7.40	26.10	14.64	43.47	---	---
September.....	12.20	31.15	19.49	48.54	---	3.45
October.....	21.80	40.15	28.54	57.55	---	12.60
November.....	27.20	45.28	33.46	62.24	---	18.01
December.....	30.00	48.25	35.89	64.56	---	20.58
<u>1963</u>						
January.....	34.60	53.35	40.21	68.90	---	25.08
February.....	30.60	49.32	36.07	64.46	---	20.97
March.....	31.60	51.12	37.39	65.63	---	22.29
April.....	33.00	52.85	38.83	67.01	40.80	23.84
May.....	35.20	55.48	40.27	67.47	43.00	25.33
June.....	36.20	56.70	41.56	67.95	43.80	25.11
July.....	24.80	49.25	36.26	67.71	35.20	24.03
August.....	26.60	52.70	37.23	68.82	36.60	25.69
September.....	26.80	54.18	38.10	69.34	37.80	26.93
October.....	19.80	47.15	31.05	62.03	30.80	19.89
November.....	20.80	48.80	31.74	79.97	32.20	21.49
December.....	27.40	54.82	38.08	68.51	38.00	27.46
<u>1964</u>						
January.....	26.60	53.55	37.33	67.09	40.00	26.46
February.....	27.60	55.10	38.83	68.69	37.80	27.57
March.....	33.60	61.28	44.10	73.34	43.60	33.56
April.....	36.60	64.45	46.77	75.78	46.80	36.85
May.....	37.80	65.55	47.88	75.50	47.80	37.07
June.....	38.00	65.82	48.15	75.50	47.80	36.49
July.....	30.80	57.12	41.40	77.20	40.80	36.82
August.....	31.40	57.30	42.03	78.74	41.40	37.38
September.....	32.00	58.92	43.45	80.27	42.00	38.87
October.....	31.00	58.32	42.80	79.50	41.20	38.07
November.....	31.20	58.80	43.00	79.49	41.60	38.45
December.....	35.60	63.58	47.40	84.24	46.60	43.07
<u>1965</u>						
January.....	40.00	67.73	51.31	88.22	51.00	47.18
February.....	41.20	68.93	52.87	89.28	52.20	48.29
March.....	43.60	71.42	54.99	90.74	54.60	50.58

1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Levy rates not published where no data are shown.

Source: Marches Agricoles, Prix.

Table 9.--Rye: EEC variable levies for nonmember countries, July 30, 1962 to March 31, 1965, averaged by months 1/

Year and month :	Belgium :	Germany : (F.R.) :	France :	Italy :	Luxem- : bourg 2/ :	Nether- : lands 2/ :
-- <u>Dollars per metric ton</u> --						
<u>1962</u>						
August	22.60	53.92	21.83	41.14	---	13.15
September	20.80	55.22	23.03	40.26	---	13.09
October	21.40	55.70	23.46	40.61	---	13.07
November	20.00	54.20	21.88	38.75	---	11.02
December	13.60	48.12	15.43	30.67	---	3.54
<u>1963</u>						
January	12.40	46.92	13.96	28.94	---	1.41
February	14.80	49.65	16.24	30.74	---	3.15
March	15.80	52.20	18.37	31.73	---	4.53
April	18.80	56.42	21.96	34.70	44.20	7.24
May	19.00	57.90	22.93	35.06	44.60	7.62
June	20.20	60.38	25.76	36.75	45.60	8.73
July	17.80	50.20	20.52	37.79	41.80	13.04
August	17.20	49.72	19.99	37.34	41.00	12.51
September	9.60	42.98	12.98	29.49	34.20	5.19
October	5.40	39.05	8.75	24.26	30.40	.44
November	5.60	39.38	8.63	22.92	32.60	.66
December	6.00	40.50	9.36	23.26	31.80	.33
<u>1964</u>						
January	6.00	40.38	9.52	22.42	31.00	0
February	9.20	44.22	12.74	24.77	33.40	1.22
March	15.60	51.42	19.57	30.74	39.40	6.74
April	17.60	54.10	22.14	32.62	41.20	8.70
May	18.80	56.58	24.75	34.93	42.60	9.97
June	20.40	58.78	27.45	37.28	44.20	11.57
July	21.40	50.30	21.77	39.28	41.80	15.25
August	22.00	50.22	22.00	39.17	42.20	17.93
September	21.40	50.70	22.12	38.72	41.60	19.00
October	23.80	53.78	25.56	41.66	44.40	21.80
November	25.60	56.00	27.99	43.23	46.40	23.89
December	26.20	57.10	26.98	40.51	47.40	24.56
<u>1965</u>						
January	27.20	58.32	28.38	41.47	48.40	25.58
February	26.40	58.12	28.48	41.06	47.20	25.00
March	27.80	59.95	30.14	41.36	48.20	26.10

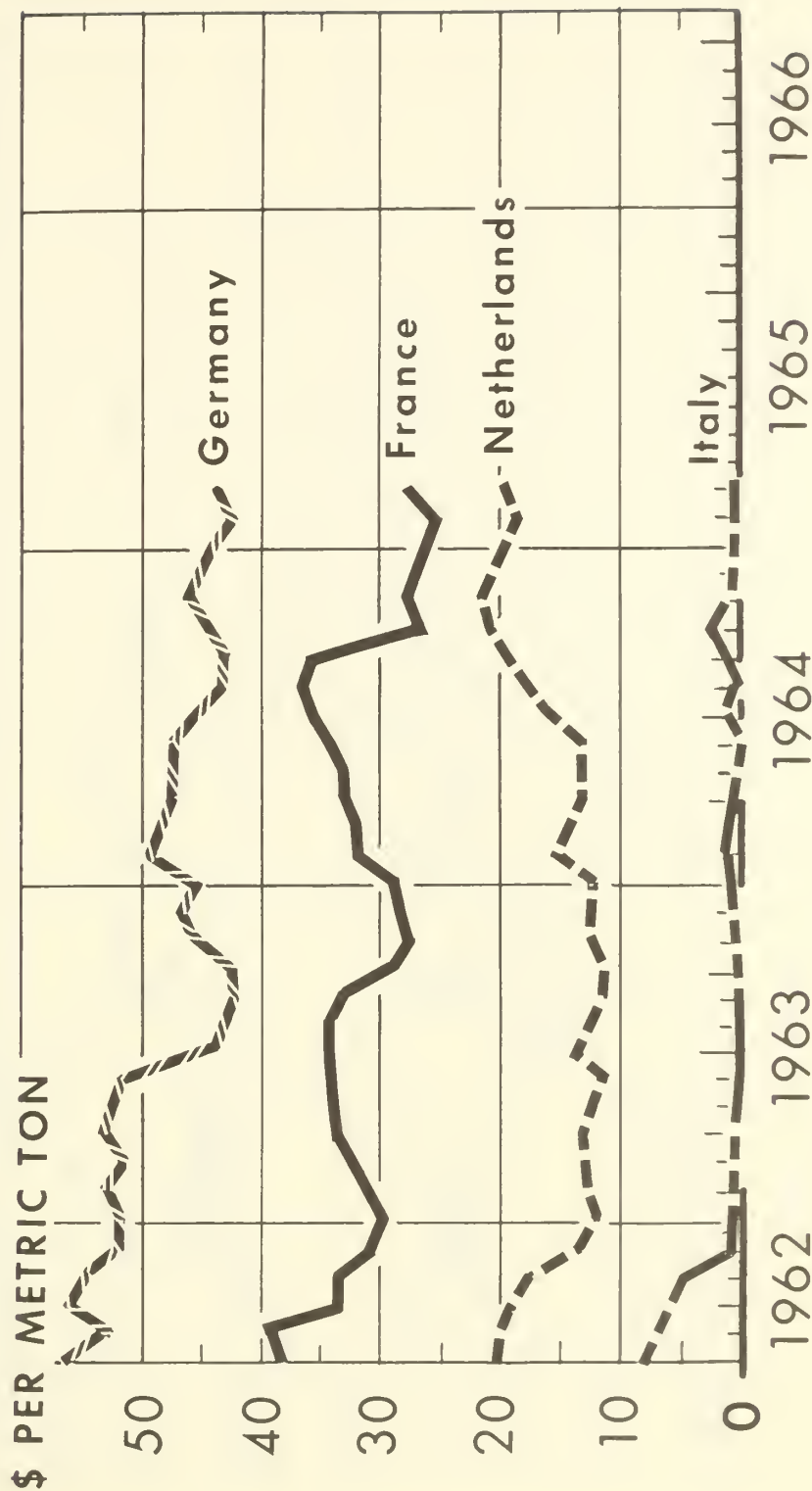
1/ July 30-31, 1962 rates identical with August rates and not separately shown.

2/ Levy rates not published where no data are shown.

Source: Marchés Agricoles, Prix.

CORN

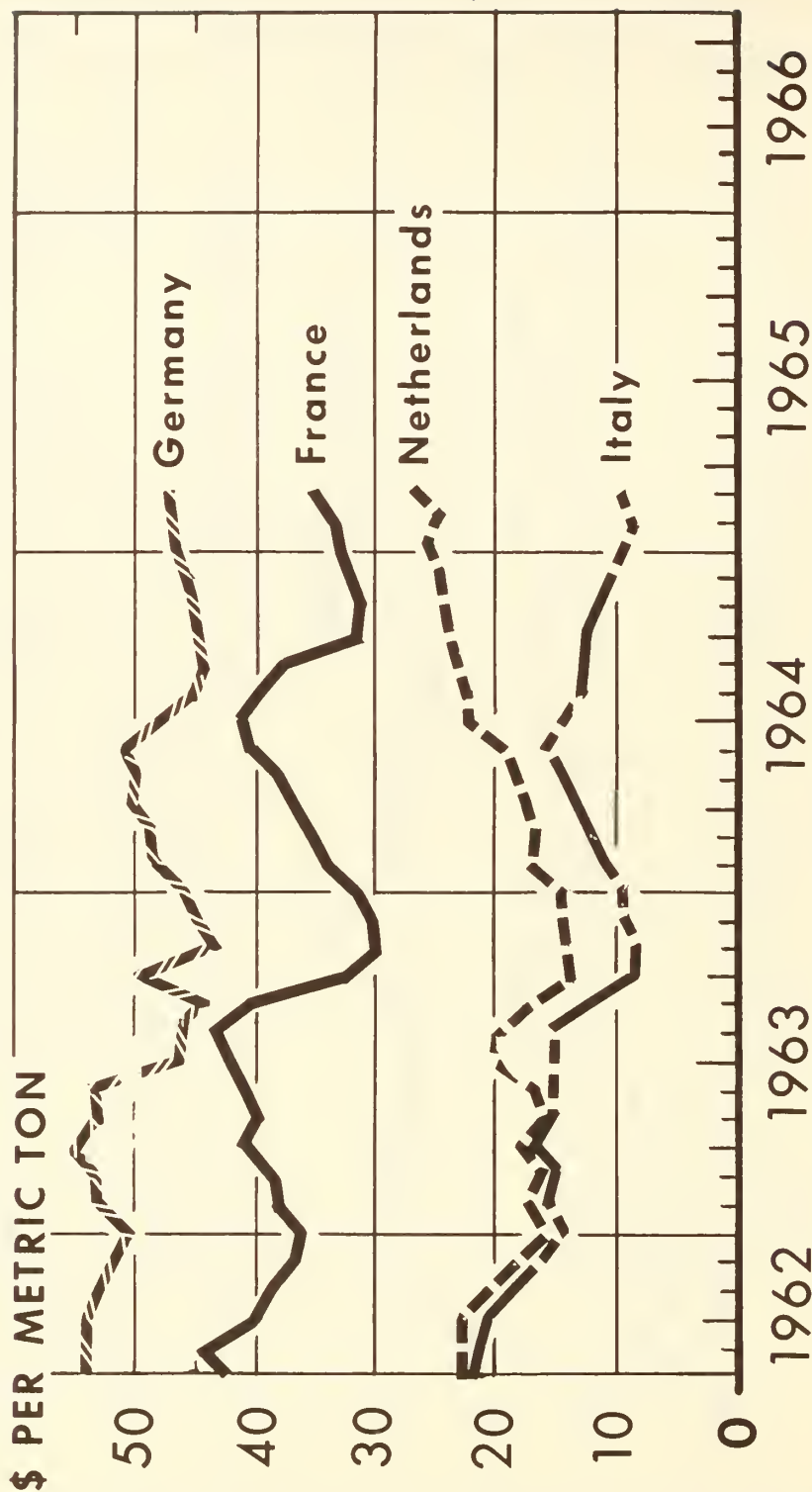
EEC Variable Levies for Nonmember Countries



BELGIUM - LUXEMBOURG NOT SHOWN, WOULD RUN BETWEEN FRANCE AND NETHERLANDS THROUGH JULY 1964, SLIGHTLY BELOW NETHERLANDS SINCE THEN.

GRAIN SORGHUM

EEC Variable Levies for Nonmember Countries



BELGIUM - LUXEMBOURG NOT SHOWN, WOULD RUN BETWEEN FRANCE AND NETHERLANDS THROUGH JULY 1964, SLIGHTLY BELOW NETHERLANDS SINCE THEN.

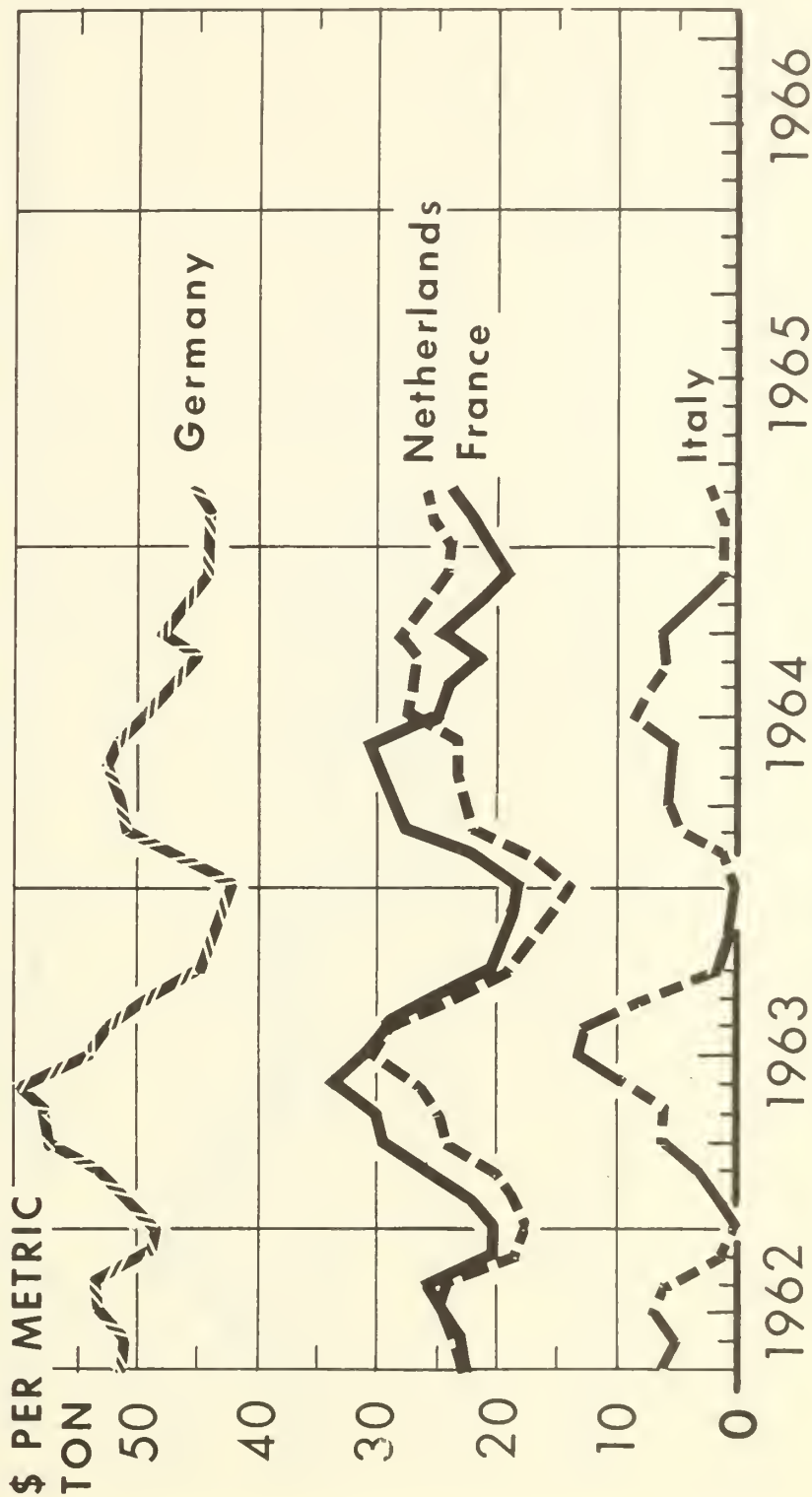
U. S. DEPARTMENT OF AGRICULTURE

NEG. ERS 3852-65 (8) ECONOMIC RESEARCH SERVICE

Fig. 4

BARLEY

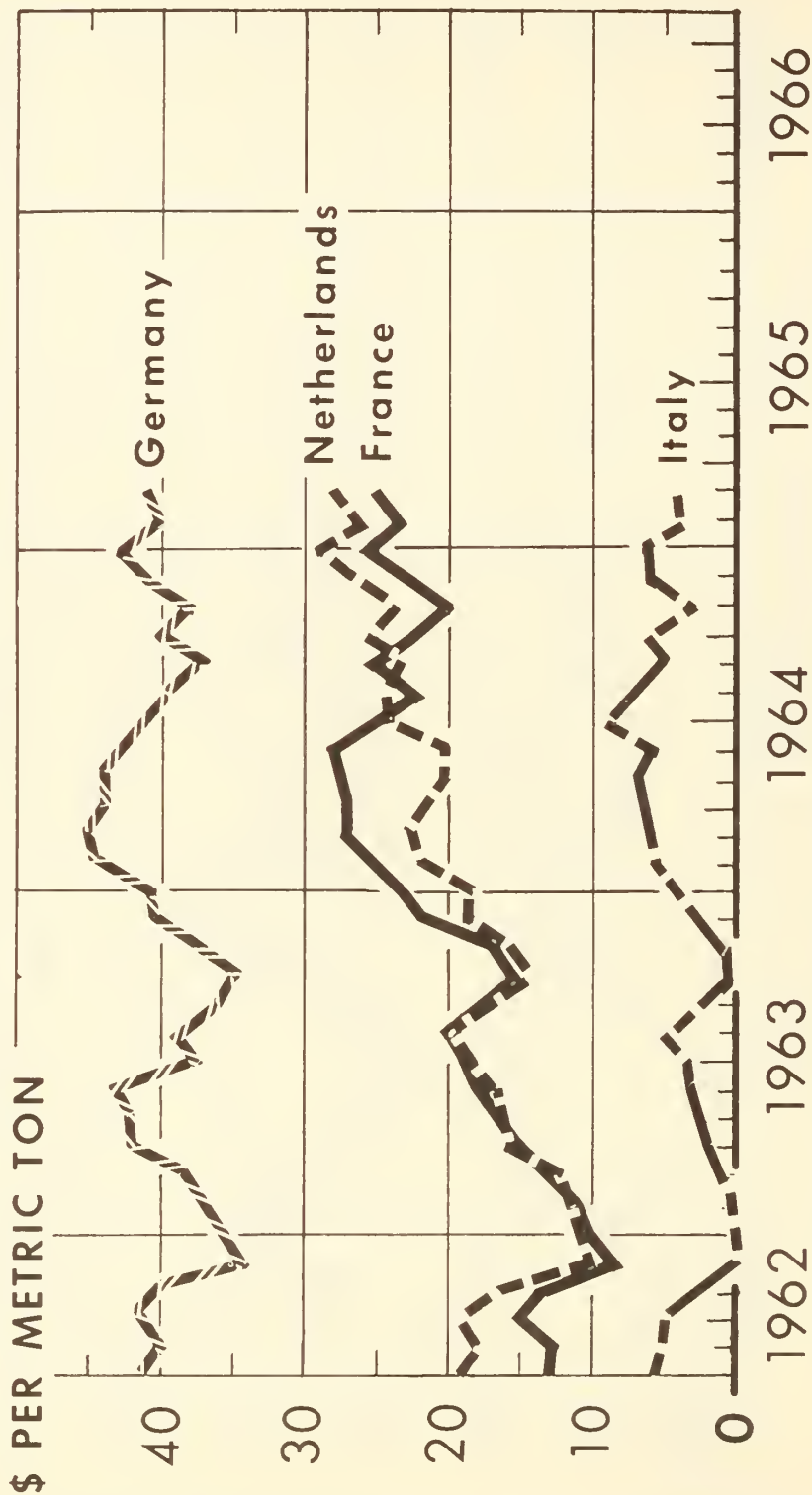
EEC Variable Levies for Nonmember Countries



BELGIUM - LUXEMBOURG NOT SHOWN, WOULD RUN ABOVE NETHERLANDS AND FRANCE THROUGH MAY 1964, BETWEEN THEM SINCE THEN.

OATS

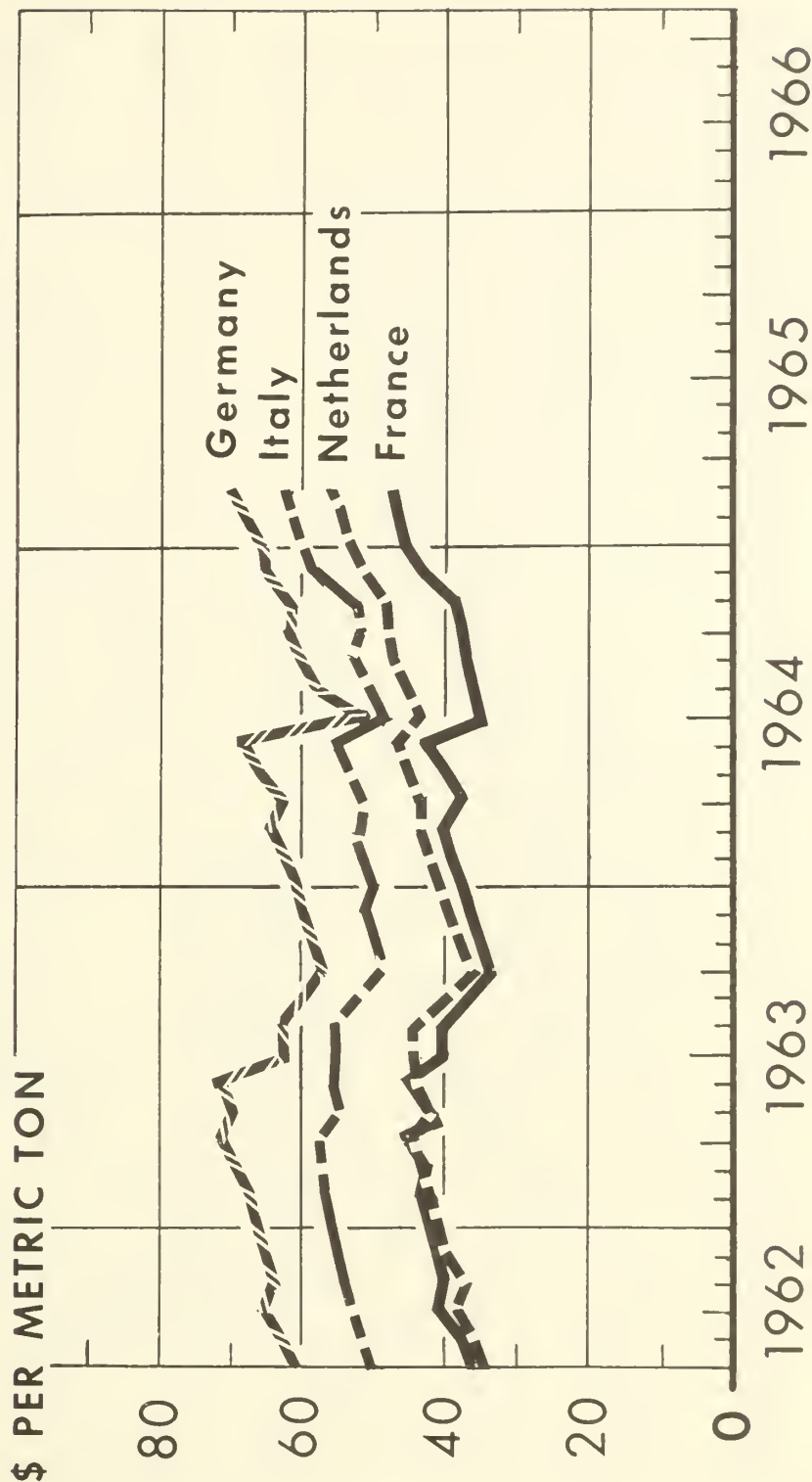
EEC Variable Levies for Nonmember Countries



BELGIUM - LUXEMBOURG NOT SHOWN, WOULD RUN SLIGHTLY ABOVE FRANCE THROUGH JUNE 1963, SLIGHTLY BELOW FRANCE SINCE THEN.

NONDURUM WHEAT

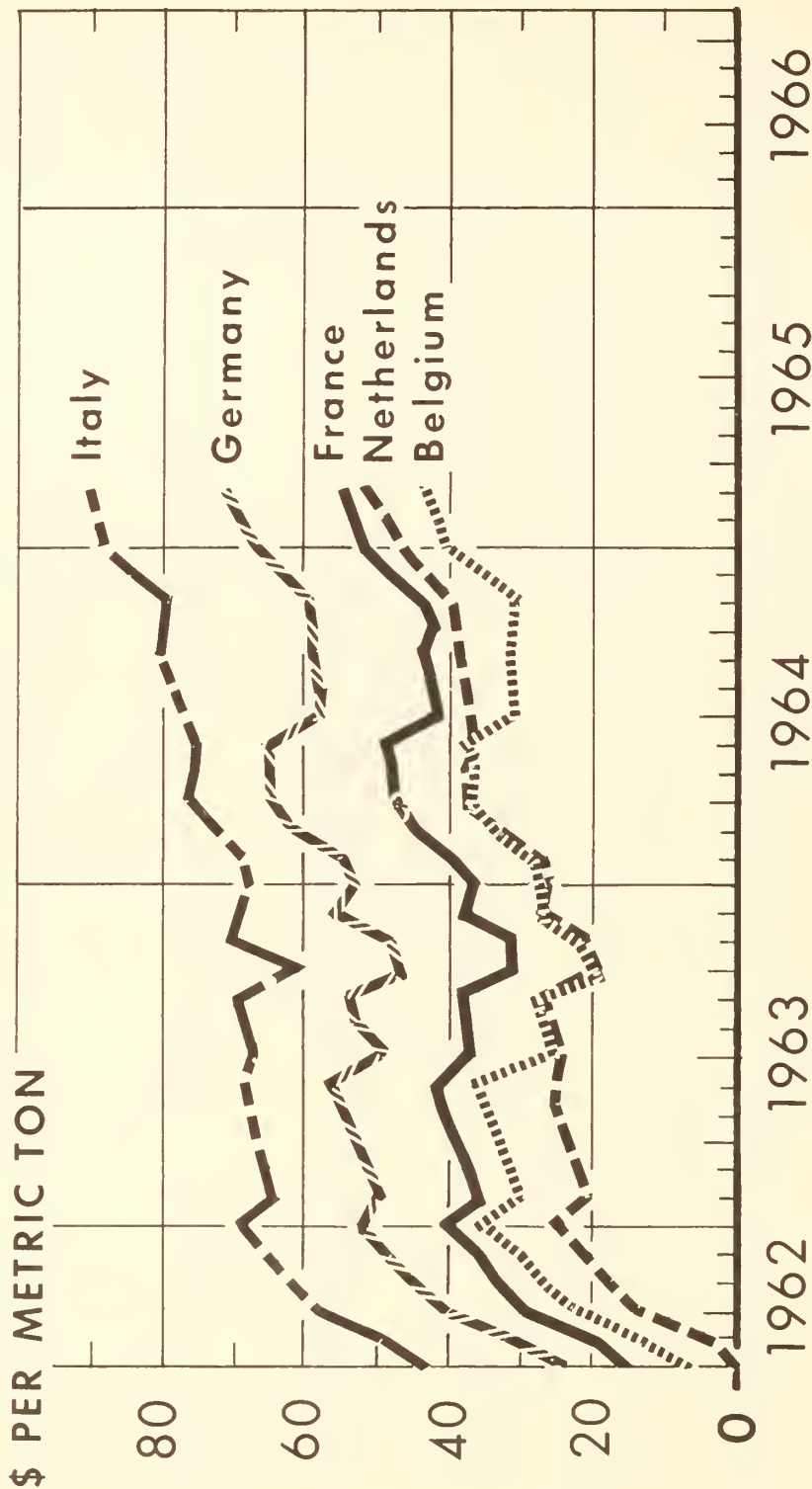
EEC Variable Levies for Nonmember Countries



BELGIUM AND LUXEMBOURG NOT SHOWN, BELGIUM WOULD RUN SLIGHTLY ABOVE FRANCE; LUXEMBOURG WOULD RUN SLIGHTLY ABOVE OR BELOW ITALY.

DURUM WHEAT

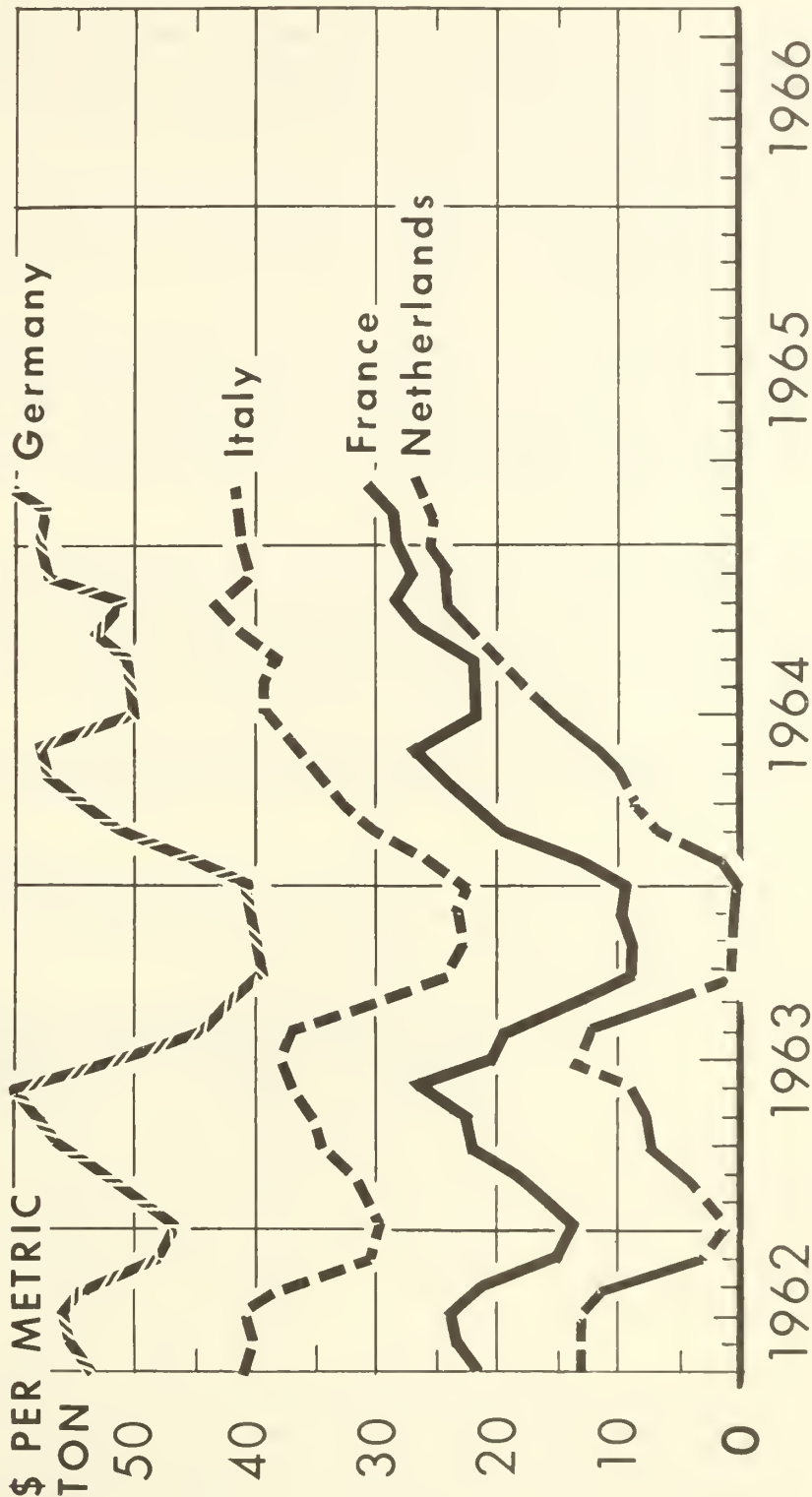
EEC Variable Levies for Nonmember Countries



LUXEMBOURG NOT SHOWN, WOULD RUN CLOSE TO FRANCE.

RYE

EEC Variable Levies for Nonmember Countries



BELGIUM AND LUXEMBOURG NOT SHOWN. BELGIUM GENERALLY WOULD RUN BETWEEN FRANCE AND NETHERLANDS. LUXEMBOURG WOULD RUN BETWEEN GERMANY AND ITALY.

The temporal variation of these series is analyzed in table 10, in estimated standard deviations and estimated coefficients of variation. 12/

For grains other than durum wheat, the estimated standard deviations of the levy series range from \$2.03 to \$6.32 per metric ton, and the estimated coefficients of variation range from 5.4 to 62.1 percent. Variable levies on corn, barley, and oats in Italy were at times zero; thus, the midpoint of the range of these levy series is quite low and the coefficients of variation are high. The standard deviations and coefficients of variation of the levies on durum wheat are large, apparently a belated reflection of the abnormally low yield and production and resultant high price of that crop in the United States during the 1961-62 crop year.

Monthly averages and measures of variation derived from them may conceal the true variation of a series of daily data. However, complete series of daily levies for the entire 32-month period (end of July 1962 to end of March 1965) are available in Washington for Italy only. The daily levy series for nondurum wheat was tabulated (table 11). Unless a new month starts on Sunday or Monday,

12/ The data are not actual standard deviations of the series in tables 3-9 but estimates obtained by the method presented in Snedecor, George W., Statistical Methods, The Iowa State College Press, Ames Iowa, 5th edition, 1956, p. 38. For 32 observations (32 months, August 1962 through March 1965) the range of the observed values is multiplied by 0.242.

The estimated coefficients of variation are analogously derived as the percentages which the estimated standard deviations are of the midpoints of the ranges.

For 6 of the 38 series (7 grains, 6 countries, minus 4 feed grain series in which Luxembourg equals Belgium, see tables 3-9 and figures 3-9) standard deviations and coefficients of variation were actually calculated. These compare with the corresponding estimates as follows:

	: <u>Standard deviation</u>		: <u>Coefficient of variation</u>	
	: <u>Estimated</u>	: <u>Actual</u>	: <u>Estimated</u>	: <u>Actual</u>
	: <u>Dollars per m.t.</u>		: <u>Percent</u>	
	:	:	:	:
Nondurum wheat, Germany	3.67	4.13	: 5.7	6.5
Nondurum wheat, Italy	3.25	3.32	: 5.9	6.1
Corn, Italy	2.03	2.23	: 48.3	173.6
Corn, France	3.37	3.54	: 10.5	11.1
Corn, Germany	3.58	4.42	: 7.2	9.2
Corn, Netherlands	2.50	3.41	: 15.3	21.7
	:	:	:	:

Generally, the calculated measures slightly exceed the estimated ones. Only the estimated coefficient of variation for the Italian corn levies grossly understates the actual amount. Italian corn levies ranged from \$5.39 to \$8.40 from August to November 1962, but only from 0 to \$2.08 thereafter. This distribution of observations is so different from normality that mean and midpoint of the range differ significantly with a decisive effect upon the estimated coefficient of variation.

Table 10.--Estimated standard deviations and coefficients of variation, European Economic Community variable levies on principal grains from third countries, averaged by months, August 1962 to March 1965

Commodity	: Germany :	Italy	: Nether- : : lands :	France	: Belgium :	Luxem- bourg
		Standard deviations				
		-- Dollars per metric ton --				
Nondurum wheat	3.67	3.25	5.09	3.21	3.05	<u>1/3.50</u>
Rye	5.16	5.04	6.32	5.20	5.42	<u>1/4.70</u>
Barley	4.18	3.22	3.69	2.87	3.53	<u>2/3.53</u>
Oats	2.65	2.20	4.45	4.81	3.00	<u>2/3.00</u>
Corn	3.58	2.03	2.50	3.37	4.07	<u>2/4.07</u>
Sorghum	2.67	3.11	2.99	3.61	4.07	<u>2/4.07</u>
Durum wheat	10.97	11.44	<u>3/11.55</u>	9.76	8.76	<u>1/6.21</u>
		Coefficients of variation				
		-- Percent --				
Nondurum wheat	5.7	5.9	11.3	7.9	7.2	<u>1/6.6</u>
Rye	10.4	15.4	48.4	26.8	32.7	<u>1/11.9</u>
Barley	8.2	48.5	16.8	11.7	13.0	<u>2/13.0</u>
Oats	6.6	62.1	22.7	13.0	16.9	<u>2/16.9</u>
Corn	7.2	48.3	15.3	10.5	17.7	<u>2/17.7</u>
Sorghum	5.4	20.6	15.0	9.8	15.1	<u>2/15.1</u>
Durum wheat	22.5	17.0	<u>3/42.7</u>	28.0	34.4	<u>1/14.5</u>

1/ Only 24 observations available on Luxembourg nondurum wheat, durum wheat, and rye.

2/ Same as Belgium.

3/ Only 31 observations available on Netherlands durum wheat.

and sometimes even then, a levy rate is kept unchanged from Saturday through Monday; but it may be changed as often as daily from Tuesday through Saturday, whenever the difference between the threshold price and the c.i.f. price changes by more than the specified minimum; see footnote 6. Thus, from July 30, 1962, through March 31, 1965, the levy rate might have been changed 700 times (allowing for 3 actual Sunday or Monday changes with a new month). Actually, the rate remained unchanged most of the time; 160 changes occurred during the period -- few in relation to 700 possible changes, but very many from the standpoint of the international trader. The standard deviation is \$3.85 per metric ton and the coefficient of variation 7.1 percent. These magnitudes are but slightly higher than those describing the variation of the monthly averages, \$3.32 and 6.1 percent, respectively; see footnote 12.

German grain levies are published in Ernaehrungsdienst, a newspaper which appears 3 times a week. The method of publication is such that only 3 rates or rate changes per week are shown instead of up to 5. The variation of the levy rates for the major grains, as published in Ernaehrungsdienst, was measured for the months of August 1962, 1963, and 1964 and also for March 1965; see table 12.

Table 11.--Wheat, non-durum: Daily variable levies on Italian imports from nonmember countries, July 30, 1962 to March 31, 1965

Date	: Levy	: Date	: Levy	: Date	: Levy	: Date	: Levy	: Date	: Levy	: Date	: Levy	: Date	: Levy
Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per	Dollars per
metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton	metric ton
1962													
July 30	49.81	Sept. 29-		Nov.		Jan. 30	56.35	Apr. 2	57.75	June 4	55.75	Aug. 3-5	56.10
31	50.65	Oct. 1	55.55	30	53.75	31	56.35	3	57.75	5	55.75	6	56.10
August 1	50.10	2	54.89	Dec. 1-3	55.05	Feb. 1	57.15	4	57.75	6	55.75	7	56.10
2	50.10	3	54.90	4	55.05	2-4	57.15	5	57.75	7	55.75	8	56.10
3	50.05	4	55.45	5	55.05	5	57.15	6-8	57.00	8-10	56.50	9	56.10
4-6	50.10	5	55.45	6	55.05	6	57.15	9	57.00	11	54.20	10-12	56.10
7	50.15	6-8	52.60	7	55.05	7	57.15	10	57.80	12	56.20	13	56.10
8	49.95	9	54.50	8-10	55.05	8	57.15	11	57.80	13	56.20	14	56.10
9	50.10	10	55.10	11	55.05	9-11	57.15	12	57.80	14	56.20	15	56.10
10	50.35	11	55.05	12	55.05	12	57.15	13-15	57.80	15-17	56.20	16	56.10
11-13	51.05	12	54.55	13	55.05	13	57.15	16	57.80	18	54.25	17-19	56.10
14	50.75	13-15	52.60	14	55.80	14	57.15	17	57.80	19	54.25	20	56.10
15	50.75	16	54.05	15-17	55.80	15	57.15	18	58.65	20	56.60	21	56.10
16	50.75	17	52.60	18	53.80	16-18	57.15	19	58.65	21	56.60	22	56.10
17	50.25	18	52.10	19	56.05	19	57.15	20-22	57.80	22-24	56.60	23	56.10
18-20	49.95	19	52.10	20	56.05	20	57.15	23	57.80	25	56.60	24-26	56.10
21	49.95	20-22	52.20	21	56.05	21	57.15	24	57.80	26	56.60	27	55.35
22	49.95	23	52.10	22-24	56.05	22	57.15	25	57.80	27	58.20	28	55.35
23	49.95	24	52.10	25	56.05	23-25	57.15	26	57.80	28	58.20	29	55.35
24	49.55	25	52.10	26	56.05	26	57.15	27	57.80	29-30	58.20	30	54.60
25-27	49.55	26	52.10	27	56.05	27	57.15	27-29	57.80	July 1	55.05	Aug. 31-	
28	49.50	27-29	52.10	28	56.05	28	57.15	30	57.80	2	55.05	Sept. 2	54.60
29	50.20	30	52.10	29-31	56.05	Mar. 1	56.90	2	55.90	3	55.05	3	54.60
30	50.15	31	52.10	1963		2-4	54.40	3	55.90	4	55.05	4	54.60
31	50.05	Nov. 1	54.50	Jan. 1	56.85	5	54.40	4-6	56.75	5	55.05	5	54.60
Sept. 1-3	51.00	2	54.50	2	56.85	6	56.80	7	55.50	6-8	55.05	6	53.25
4	51.10	3-5	54.50	3	56.35	7	56.80	8	55.50	9	55.05	7-9	53.25
5	51.10	6	54.50	4	56.35	8	56.80	9	54.60	10	55.05	10	53.25
6	50.70	7	54.50	5-7	54.50	9-11	56.80	10	54.60	11	55.05	11	53.25
7	51.05	8	54.50	8	54.50	12	56.35	11-13	54.60	12	55.05	12	53.25
8-10	51.25	9	54.50	9	54.50	13	58.75	14	53.60	13-15	56.15	13	53.25
11	51.10	10-12	54.75	10	56.35	14	57.75	15	54.50	16	56.15	14-16	52.35
12	50.64	13	54.75	11	56.35	15	57.75	16	54.50	17	56.15	17	52.35
13	51.00	14	54.00	12-14	56.35	16-18	57.75	17	54.50	18	55.30	18	52.35
14	51.60	15	54.00	15	56.35	19	57.75	18-20	54.50	19	55.30	19	51.10
15-17	51.60	16	54.00	16	56.35	20	57.75	21	54.50	20-22	56.10	20	51.10
18	51.50	17-19	54.75	17	56.35	21	57.75	22	54.50	23	56.10	21-23	51.10
19	51.60	20	54.75	18	56.35	22	57.75	23	54.50	24	56.10	24	50.35
20	51.80	21	54.75	19-21	56.35	23-25	57.75	24	54.50	25	56.10	25	50.35
21	52.15	22	54.75	22	56.35	26	57.75	25-27	54.50	26	56.10	26	50.35
22-24	52.35	23	54.75	23	56.35	27	57.75	28	55.75	27-29	56.10	27	50.35
25	52.00	24-26	54.75	24	56.35	28	57.75	29	55.75	30	56.10	28-30	50.35
26	52.30	27	54.75	25	56.35	29	57.75	30	55.75	31	56.10	Oct. 1	51.35
27	52.10	28	54.75	26-28	56.35	Mar. 30-		31	55.75	Aug. 1	56.10	2	51.35
28	54.40	29	53.75	29	56.35	Apr. 1	57.75	June 1-3	55.75	2	56.10	3	51.35

Continued-

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Table 11.--Wheat, non-durum: Daily variable levies on Italian imports from nonmember countries, July 30, 1962 to March 31, 1965--Continued

Date	: Levy :	Date	: Levy :	Date	: Levy :	Date	: Levy :	Date	: Levy :	Date	: Levy :	Date	: Levy :
Dollars per metric ton	:	Dollars per metric ton	:	Dollars per metric ton	:	Dollars per metric ton	:	Dollars per metric ton	:	Dollars per metric ton	:	Dollars per metric ton	:
1963													
Oct. 4	50.25	Dec. 6	52.25	Feb. 7	51.85	Apr. 10	52.75	June 12	56.05	Aug. 15-17 ..	51.70	Oct. 20	51.65
5-7	50.25	7-9	52.25	8-10	51.85	11-13	52.75	13-15	56.05	18	51.70	21	51.65
8	50.25	10	50.25	11	51.85	14	52.75	16	56.05	19	50.25	22	51.65
9	49.45	11	50.25	12	51.85	15	52.75	17	56.05	20	50.25	23	51.65
10	49.45	12	50.25	13	51.85	16	52.75	18	56.05	21	50.25	24-26	51.65
11	49.45	13	50.25	14	52.60	17	52.75	19	56.05	22	50.25	27	51.65
12-14	49.45	14-16	50.25	15-17	51.50	18-20	52.75	20-22	55.17	25	50.25	28	51.65
15	48.35	17	50.25	18	51.50	21	51.85	23	53.70	26	51.25	29	51.65
16	48.35	19	51.00	20	51.50	22	51.85	24	53.70	27	52.10	30	51.65
17	48.35	20	51.00	21	51.50	23	51.85	25	53.70	28	52.10	Oct. 31-	
18	48.35	22	51.00	23	51.50	24	51.85	26	53.70	29-31	51.10	Nov. 2 ...	51.65
19-21	48.35	21-23	51.00	22-24	52.80	25-27	51.85	28	53.70	Sept. 1	51.90	3	51.65
22	48.35	24	51.00	25	52.80	26	51.85	30	53.70	2	51.90	4	51.65
23	48.35	25	51.00	26	52.80	28	51.85	July 1	47.40	3	51.90	5	51.65
24	48.35	26	51.00	27	52.80	30	52.90	2	47.40	4	51.90	6	51.65
25	48.35	27	51.00	28	52.80	May 1	52.90	3	47.40	5-7	51.90	7-9	51.65
26-28	48.35	28-30	51.00	Feb. 29-		2-4	52.90	4-6	45.85	8	51.90	10	51.65
29	48.35	31	51.00	Mar. 2	54.15	5	52.90	7	46.60	9	51.90	11	51.65
30	47.45	1964		3	54.15	6	52.90	8	48.00	10	51.90	12	51.65
31	47.45	Jan. 1	51.00	4	54.15	7	52.90	9	48.00	11	51.90	13	51.65
Nov. 1	48.65	2	51.00	5	54.15	8	52.90	10	46.20	12-14	51.90	14-16	51.65
2-4	48.65	3	51.00	6	54.15	9-11	52.90	11-13	47.75	15	52.75	17	51.65
5	48.65	4-6	51.80	7-9	54.15	12	52.90	14	47.75	16	52.75	18	52.70
6	48.65	7	51.05	10	54.15	13	52.90	15	49.20	17	52.75	19	52.70
7	48.65	8	51.05	11	53.40	14	52.90	16	49.20	18-21	52.75	20	51.95
8	48.65	9	51.05	12	53.40	15	52.90	17	49.20	19-21	52.75	21-23	53.45
9-11	48.65	10	51.05	13	53.40	16-18	52.90	18-20	49.20	22	52.75	24	53.45
12	48.65	11-13	51.05	14-16	53.40	19	52.90	21	49.20	23	52.75	25	53.45
13	48.65	14	51.05	17 ..	53.40	20	52.90	22	49.20	24	52.75	26	53.45
14	48.65	15	50.00	18	52.40	21	52.90	23	49.20	25	52.00	27	53.45
15	48.65	16	50.00	19	52.40	22	52.90	24	49.20	26-28	52.00	28-30	56.70
16-18	49.70	17	50.00	20	52.40	23-25	54.90	25-27	49.20	29	52.00	Dec. 1	57.50
19	49.70	18-20	50.00	21-23	52.40	26	54.90	28	49.20	30	52.00	2	57.50
20	49.70	21	50.00	24	52.40	27	54.90	29	49.20	Oct. 1	53.05	3	57.50
21	49.70	22	50.00	25	52.40	28	54.90	30	49.20	2	53.05	4	57.50
22	49.70	23	50.00	26	53.20	29	54.90	31	49.20	3-5	53.05	5-7	57.50
23-25	50.50	24	50.90	27	53.20	May 30-		Aug. 1-3	50.45	6	53.05	8	57.50
26	50.50	25-27	50.90	28-30	53.20	June 1 ...	54.90	4	50.45	7	51.65	9	57.50
27	51.45	28	51.85	31	53.20	2	54.90	5	50.45	8	51.65	10	57.50
28	51.45	29	51.85	Apr. 1	52.00	3	54.90	6	50.45	9	51.65	11	57.50
29	51.45	30	51.85	2	52.00	4	54.90	7	50.20	10-12	51.65	12-14	57.50
30	51.45	31	51.85	3	52.00	5	54.90	8-10	49.95	13	51.65	15	57.50
Nov. 30-										14	51.65	16	57.50
Dec. 2	51.45	Feb. 1-3 ...	51.85	4-6	52.75	6-8	54.90	11	48.35	15	51.65	17	57.50
3	52.25	4	51.85	7	52.75	9	54.90	12	49.80	16	51.65	18	57.50
4	52.25	5	51.85	8	52.75	10	54.90	13	49.80	17	51.65	19-21	57.50
5	52.25	6	51.85	9	52.75	11	54.90	14	49.80	18	51.65	19-21	57.50

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Table 12.--Daily variation of German variable levies on principal grains from third countries for the months of August 1962 - 1964 and March 1965

Commodity	August			March 1965
	1962	1963	1964	
	<u>Standard deviations</u>			
	-- <u>Dollars per metric ton</u> --			
Nondurum wheat	0.39	4.31	1.41	0.27
Durum wheat	1.04	1.34	0.62	0.76
Rye	0.72	1.27	0.28	0.81
Barley	0.71	0.77	0.70	0.45
Corn	0.56	1.44	0.26	0
	<u>Coefficients of variation</u>			
	-- <u>Percent</u> --			
Nondurum wheat	0.6	7.4	2.4	0.4
Durum wheat	3.9	2.6	1.1	1.1
Rye	1.3	2.5	0.6	1.4
Barley	1.4	1.4	1.5	1.0
Corn	1.0	3.3	0.6	0

Generally, these standard deviations (coefficients of variation) ranged from 0 to \$1.41 per metric ton (0 to 3.9 percent) with median and modal values around \$0.70 to \$0.79 (1.1 to 1.4 percent). Only in August 1963, when world wheat prices advanced sharply, the nondurum wheat levy had a standard deviation of \$4.31 per metric ton (7.4 percent).

The tentative conclusion from this analysis is that the temporal variation of the grain levies has been remarkably small.

Levies correlated with threshold and c.i.f. prices.--Levies are supposed to be -- and except for small discrepancies due to "bracketing" ^{13/} are -- the differences between threshold and c.i.f. prices. Thus, levies as the dependable variable should correlate perfectly with threshold and c.i.f. prices as independent variables. The monthly average German nondurum wheat levies shown in table 7 were thus correlated with the corresponding threshold and c.i.f. prices. ^{14/} A multiple correlation coefficient of $R^2_{1.23} = .993$ was obtained. Similarly obtained were partial correlation coefficients of levies on threshold prices, with c.i.f. prices held constant (.989) and of levies on c.i.f. prices, with threshold prices held constant (-.978).

One would assume that a series of differences between a constant (the threshold price) and a variable (the c.i.f. price) would correlate perfectly with the

^{13/} See footnote 6.

^{14/} Obtained from various issues of EEC Informations, Marchés Agricoles, Prix.

c.i.f. price alone. Actually, in the case of German nondurum wheat levies, the seasonal escalation of the threshold price meant that that price was not a constant at all; see figure 10. Levies, correlated with threshold prices, yielded a correlation coefficient of .821, statistically significant at the .001 level. Levies correlated with c.i.f. prices yielded a lower correlation coefficient of $-.607$, also significant at the .001 level. However, the difference between these 2 correlation coefficients, ignoring signs, in terms of the z distribution, was only significant at the .1 level.

For further analysis of the levy-threshold price correlation, the 32-month period was divided into 3 partial or complete marketing years. During 1962-63, c.i.f. prices were rather stable; the monthly averages ranged from \$58.30 to \$60.82 per metric ton with no seasonal trend evident. Thus, the administered threshold prices, rising from \$121.00 to \$132.25 with the progress of the marketing season, became the principal determinants of changes in the levies, and the correlation coefficient of the 2 series is .972. During the first 9 months of the marketing year 1964-65, c.i.f. prices fell gradually from \$63.38 to \$57.00 while threshold prices rose, as scheduled, from \$119.50 to \$126.80. This resulted in a correlation coefficient of .982 between levies and threshold prices and in a correlation coefficient of almost the same magnitude, $-.975$, between levies and c.i.f. prices.

In 1962-63, the regression coefficient of the levy on the threshold price was .873; in other words, with each \$1 change in the latter the levy changed \$0.873 in the same direction. In 1964-65, the regression coefficient of the levy on the threshold price was 1.675 -- almost twice the 1962-63 rate because of the decline in the c.i.f. prices. The regression coefficient of the levy on the c.i.f. price was -2.137 in 1964-65, reflecting the seasonal increase in the threshold price that accompanied the decline in the c.i.f. price.

As against these close associations, the year 1963-64 was different. It began with very low c.i.f. prices, averaging \$57.18 in July-August; the c.i.f. prices reached a high point of \$65.20 in October when the Soviet Union entered the world market as a buyer; prices subsequently eased off from that level. The July and August values lie far removed from a regression line which would closely describe the relationship between levies and threshold prices during the other 10 months of that year; see figure 10. For a summary of these statistics, see table 13. A somewhat similar result was obtained from a correlation of Dutch corn levies with the corresponding threshold price. During 1962-63 and 1963-64 the Dutch threshold price for corn remained constant at \$70.44 and \$73.48 per metric ton, respectively. During 1964-65, however, seasonal escalation (beginning in July rather than in October) was introduced. Thus, the coefficient for the correlation of levies with threshold prices during the 33-month period (August 1962 to April 1965) was .629, statistically significant at the .001 level. The correlation of levies with c.i.f. prices resulted in an insignificant coefficient of $-.149$.

Based on this limited evidence, changes in levy rates apparently have been strongly influenced by changes in threshold prices; also fluctuations in world market prices have probably played a somewhat secondary role as determinants of the levy rates.

West Germany, Average Monthly Levy and Threshold Price,
August 1962 - March 1965

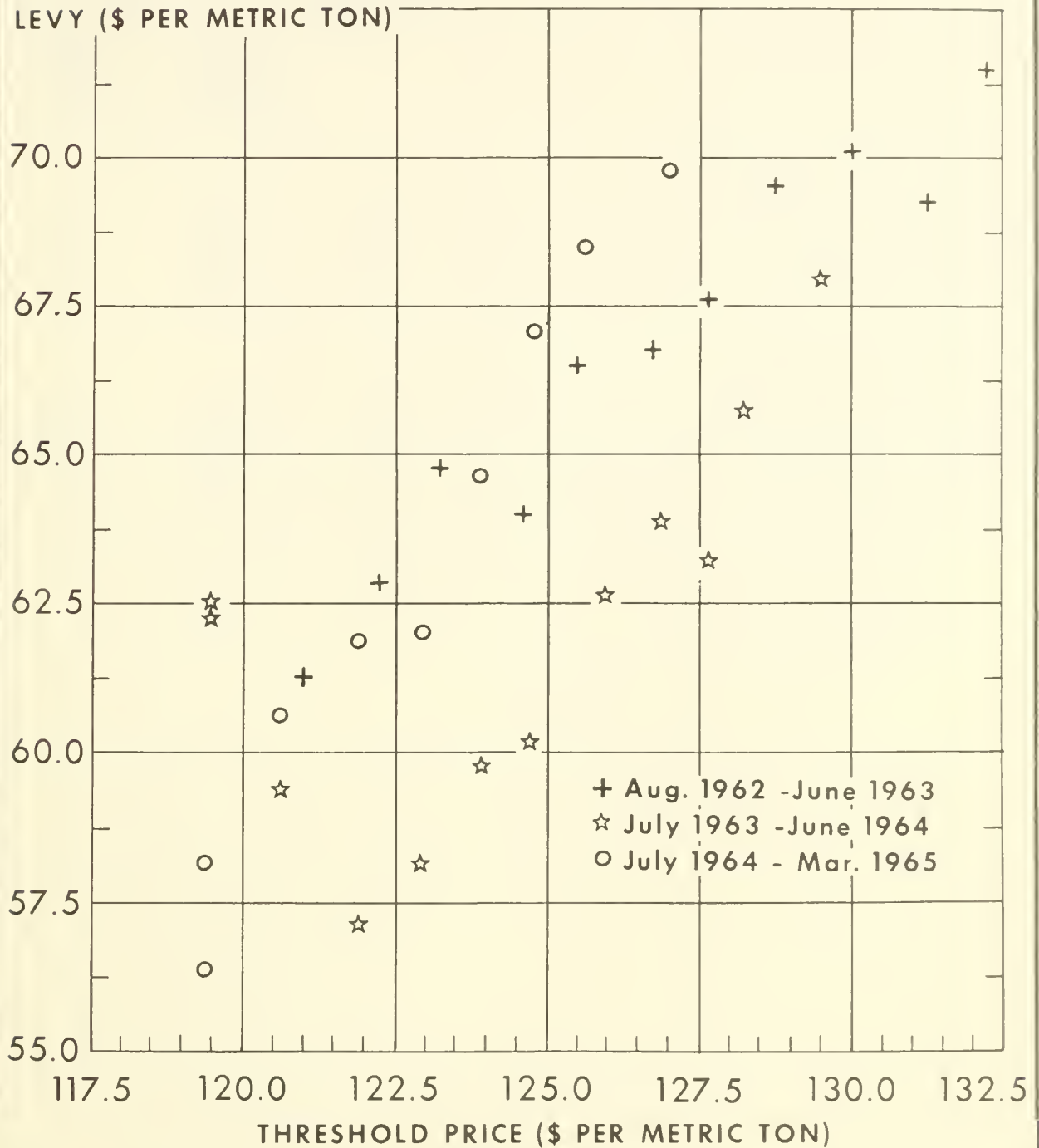


Table 13.--Correlation analysis of levies on threshold and c.i.f. prices, non-durum wheat, Germany, August 1962-March 1965

Period	: :Correlation: :coefficient: :	: :Standard :error :	: :Regression :coefficient :
		<u>Dollars</u> <u>per</u> <u>metric ton</u>	<u>Dollars</u> <u>per</u> <u>metric ton</u>
<u>Levies on threshold prices</u>	:		
August 1962 - March 1965	.821	9.42	.950
August 1962 - June 1963	.972	3.00	.873
July 1963 - June 1964	.670	9.21	.620
July 1964 - March 1965	.982	3.28	1.675
<u>Levies on c.i.f. prices</u>	:		
August 1962 - March 1965	-.607	13.11	-1.030
August 1962 - June 1963	-.222	12.46	-.898
July 1963 - June 1964	-.351	11.63	-.413
July 1964 - March 1965	-.975	3.86	-2.137